Casedhole Solutions

SECTOR LOG
LOGGED UNDER 2500 PSI

Company	NOBLE ENERGY INC.
Well	RILEY LD19-745
Field	WATTENBERG
County	WELD
State	COLORADO

Company NOBLE ENERGY INC.

Well RILEY LD19-745

Field WATTENBERG

County WELD State COLORADO

Location: API #: 0512343518

BHL: 140' FNL & 2320' FEL

SW/SE

SEC 19 TWP 9N RGE 58W

Other Services

Permanent Datum	GL	Elevation	4820	Elevation
Log Measured From	KB			K.B. 4850
Drilling Measured From	KB			D.F.
				G.L. 4820

Date	NOVEMBER 15, 2016
Run Number	ONE
Depth Driller	10,872
Depth Logger	6234
Bottom Logged Interval	6234
Top Log Interval	SURFACE
Open Hole Size	8-1/2
Type Fluid	WATER
Density / Viscosity	N/A
Max. Recorded Temp.	247°F
Estimated Cement Top	1730
Time Well Ready	CRANE
Time Logger on Bottom	2-3/4 PROBE
Equipment Number	922338
Location	45
Recorded By	GREG NOLAN
Witnessed By	BILL MANSFIELD

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9-5/8	36# J-55	30	1918.3
Prot. String				
Production String	5-1/2	20# P-110IC	30	10,862
Liner				

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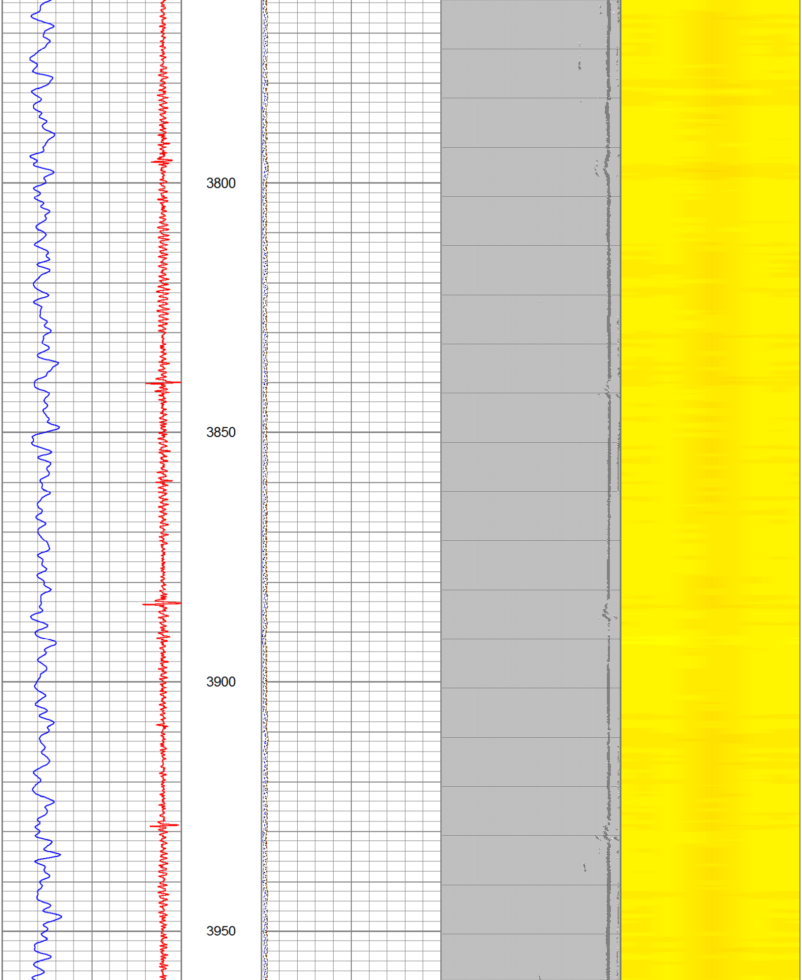
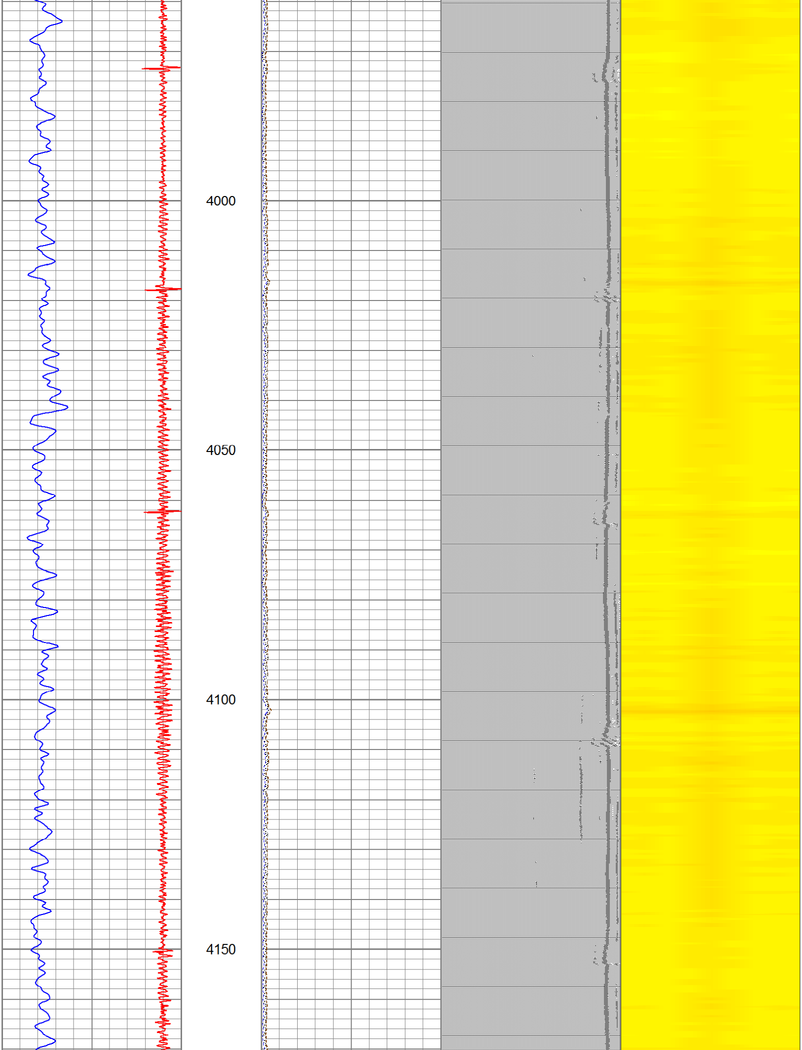
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

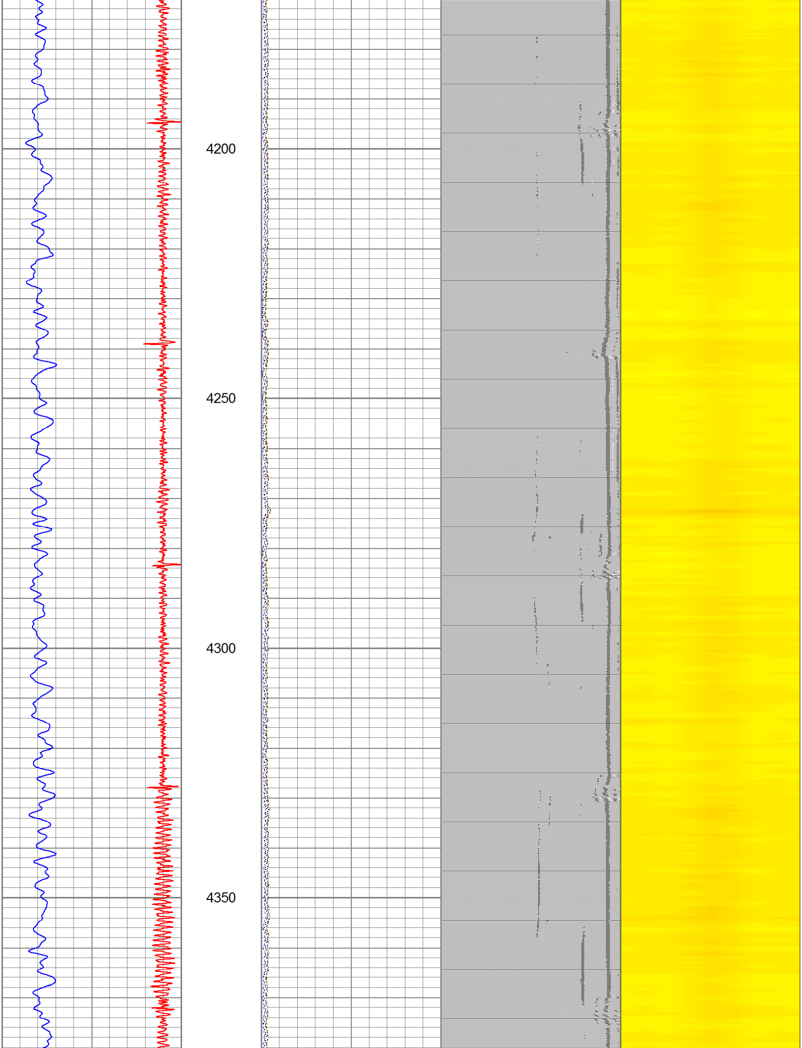
Comments

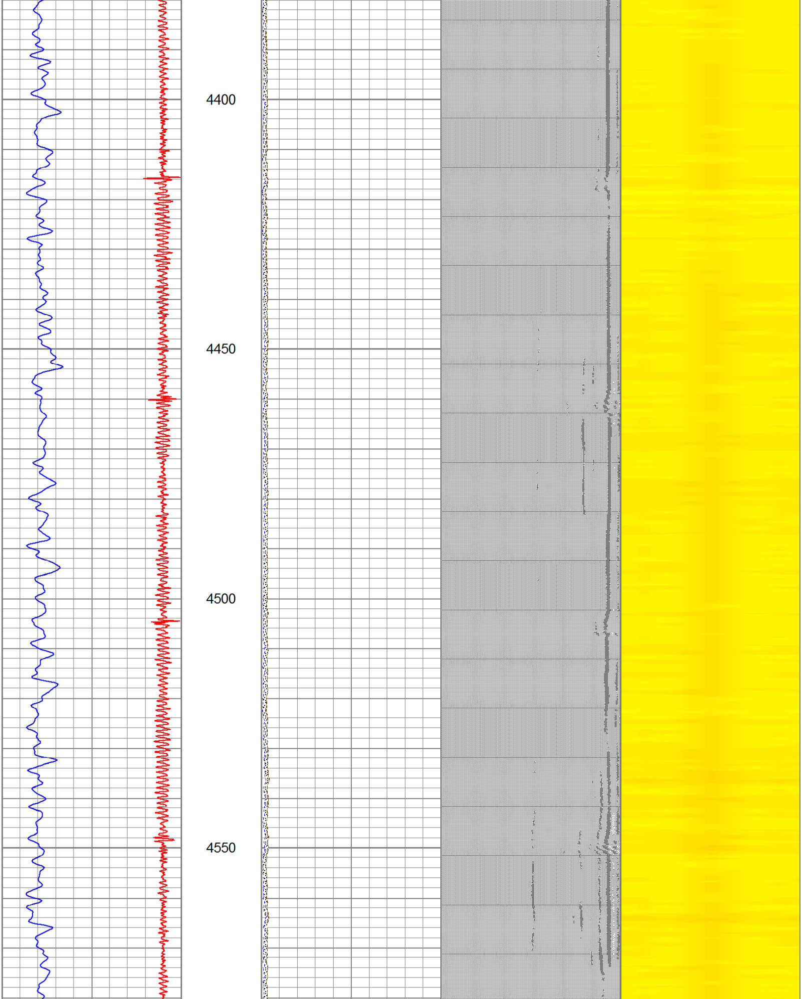
THANK YOU FOR CHOOSING CHS!!!
LOG NOT CORRELATED
SECOND WELL FROM THE WEST OF A 5 WELL PAD
W< O X O O O >E

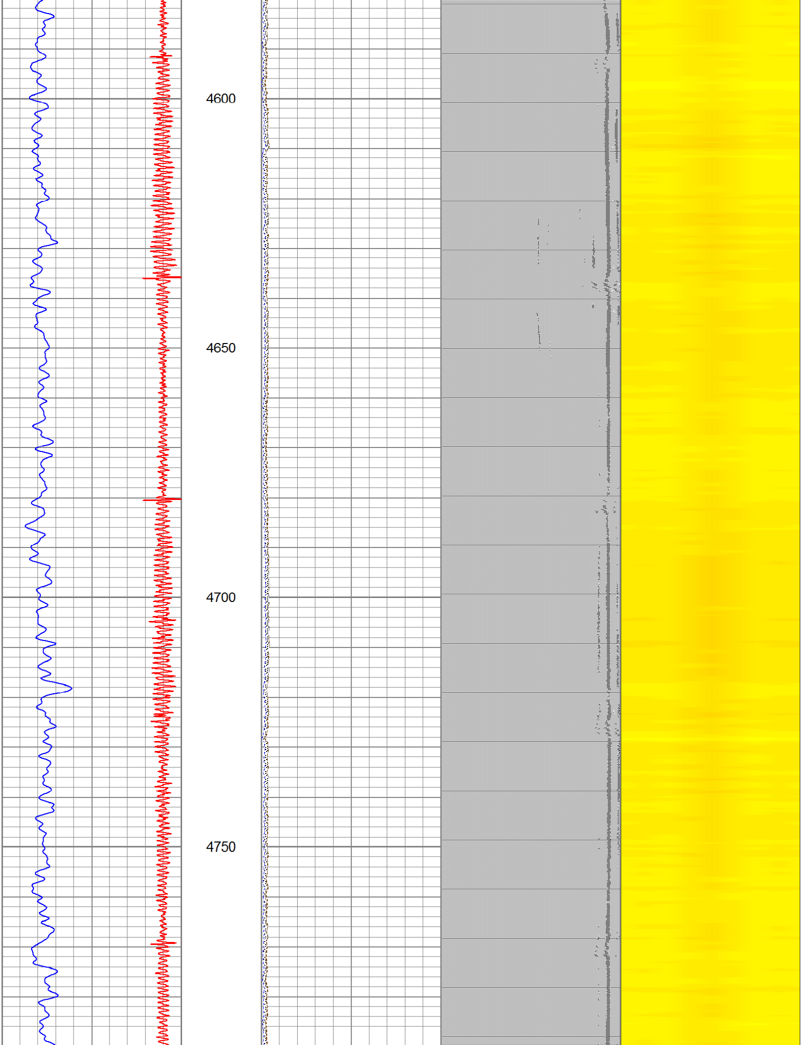
Database File:	cbl noble riley ld19-745.db
Dataset Pathname:	pass5
Presentation Format:	sector2
Dataset Creation:	Tue Nov 15 16:38:36 2016 by Log 7.0 B1
Charted by:	Depth in Feet scaled 1:240

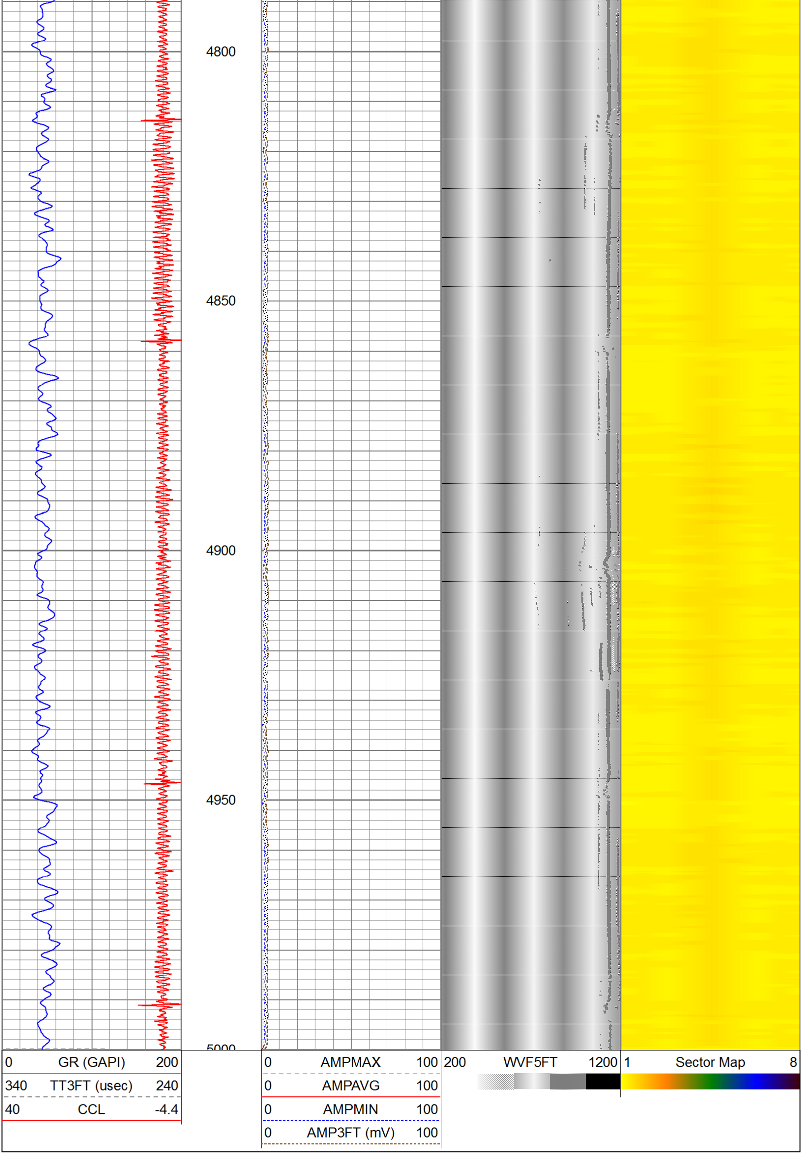




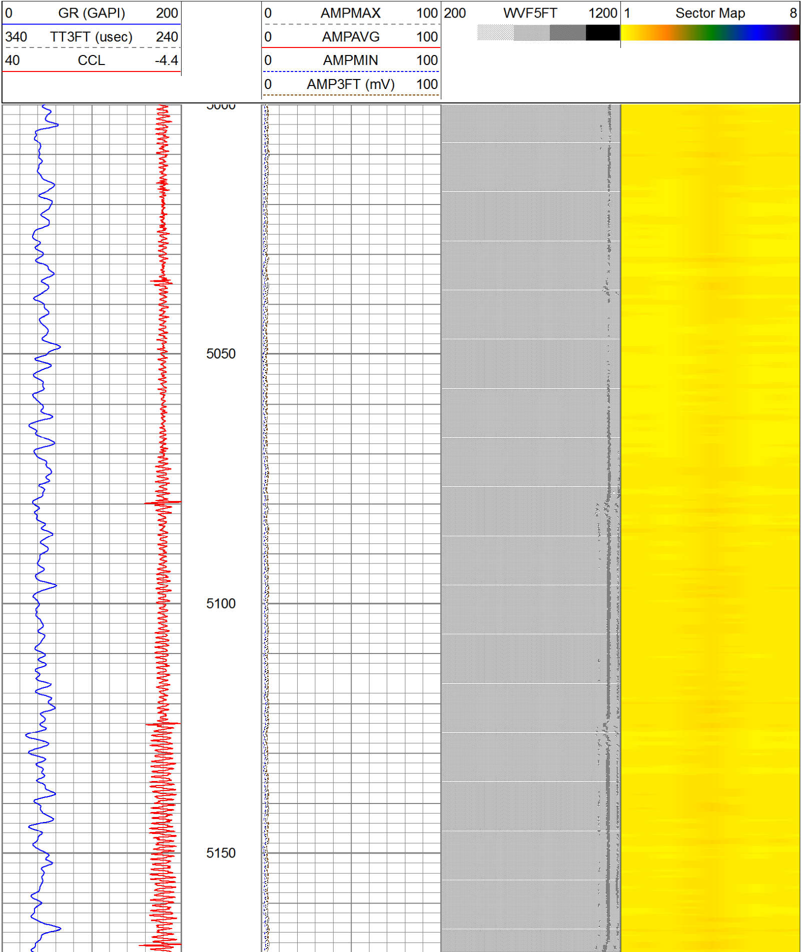


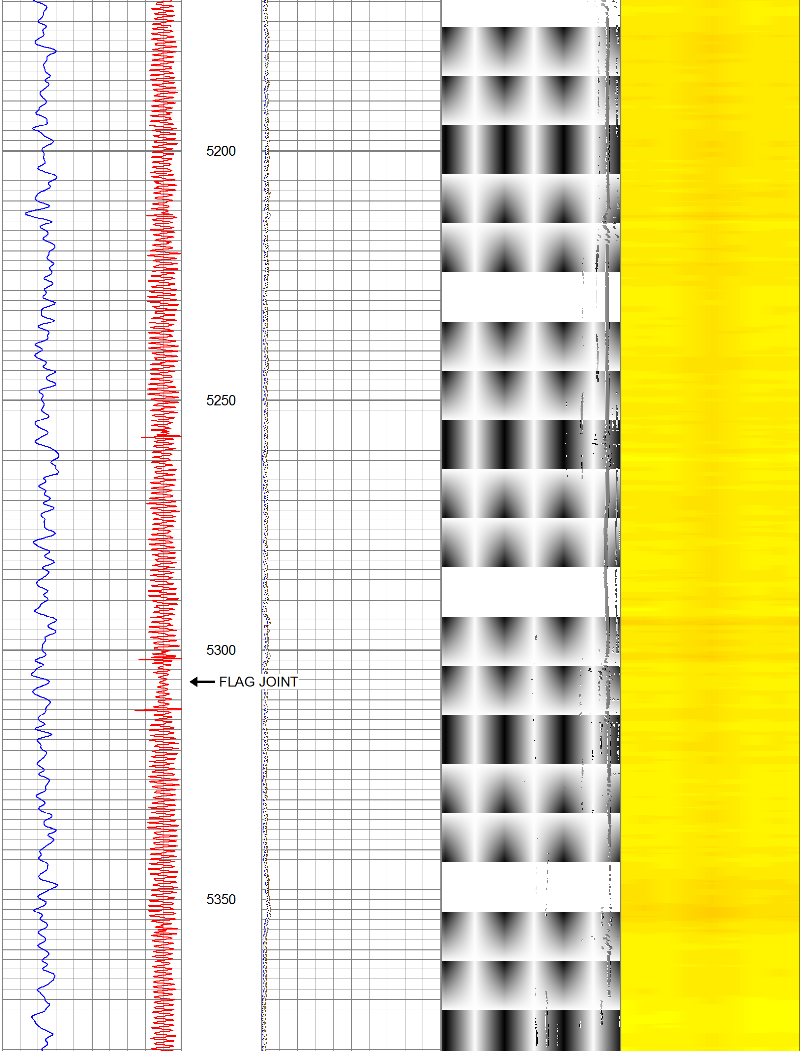


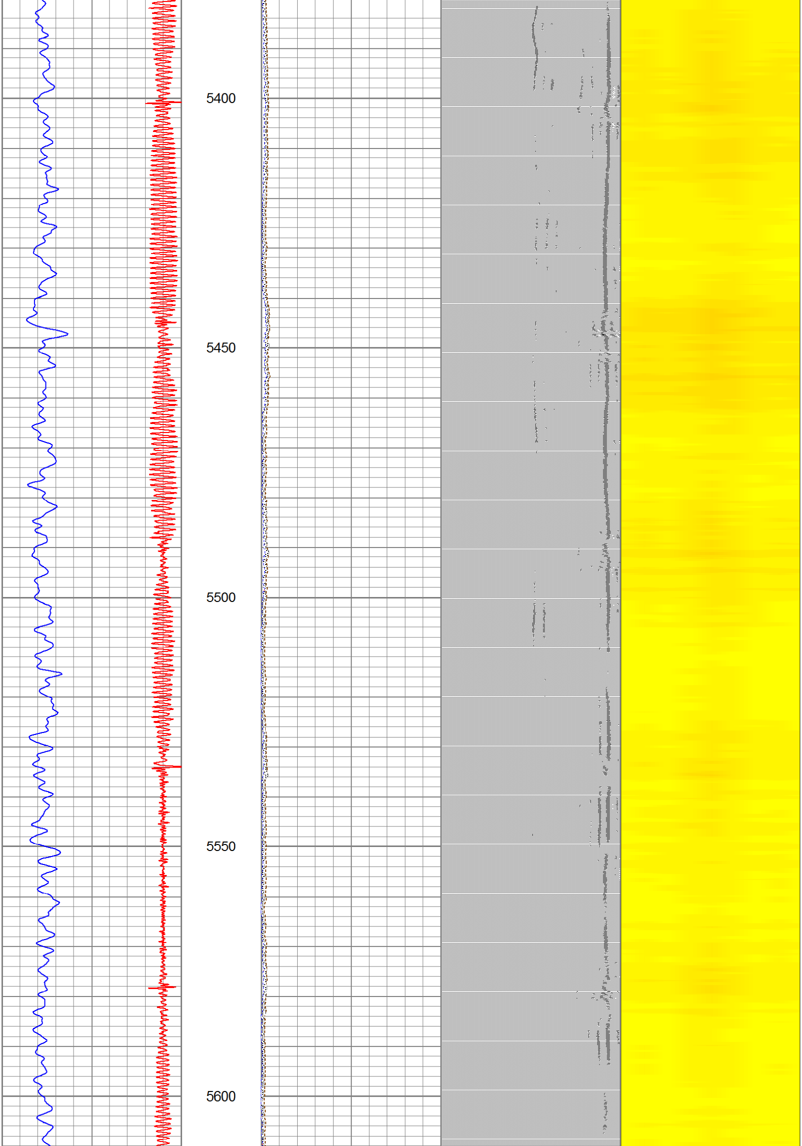


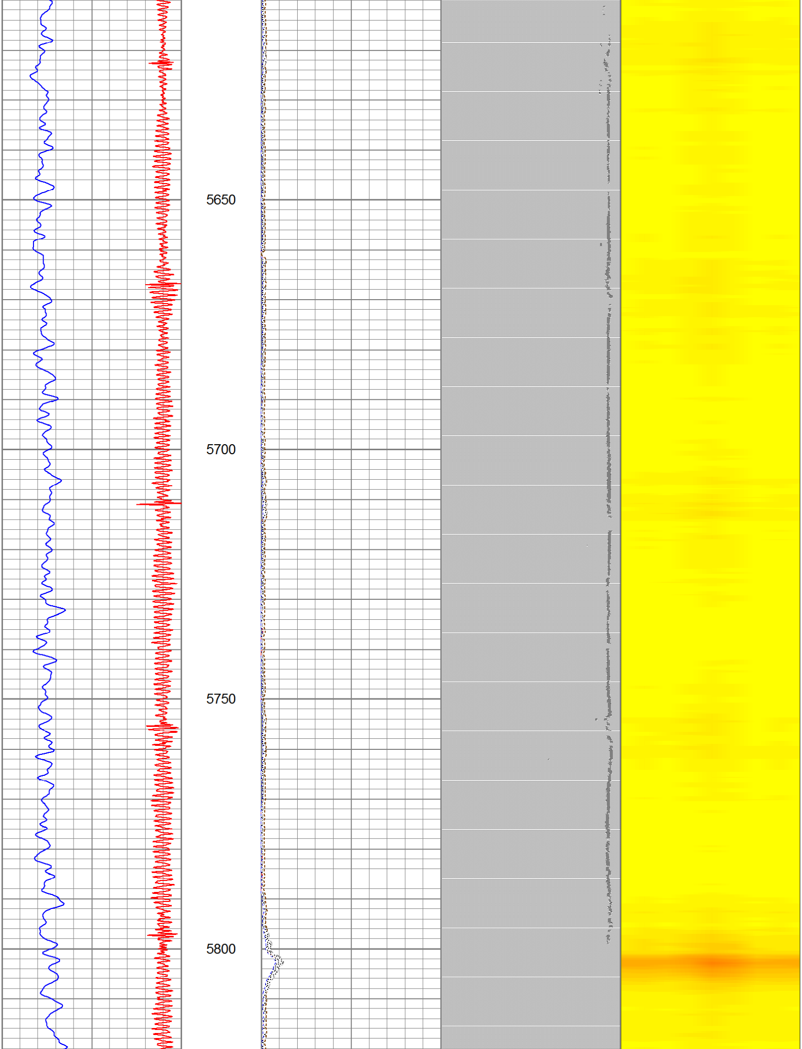


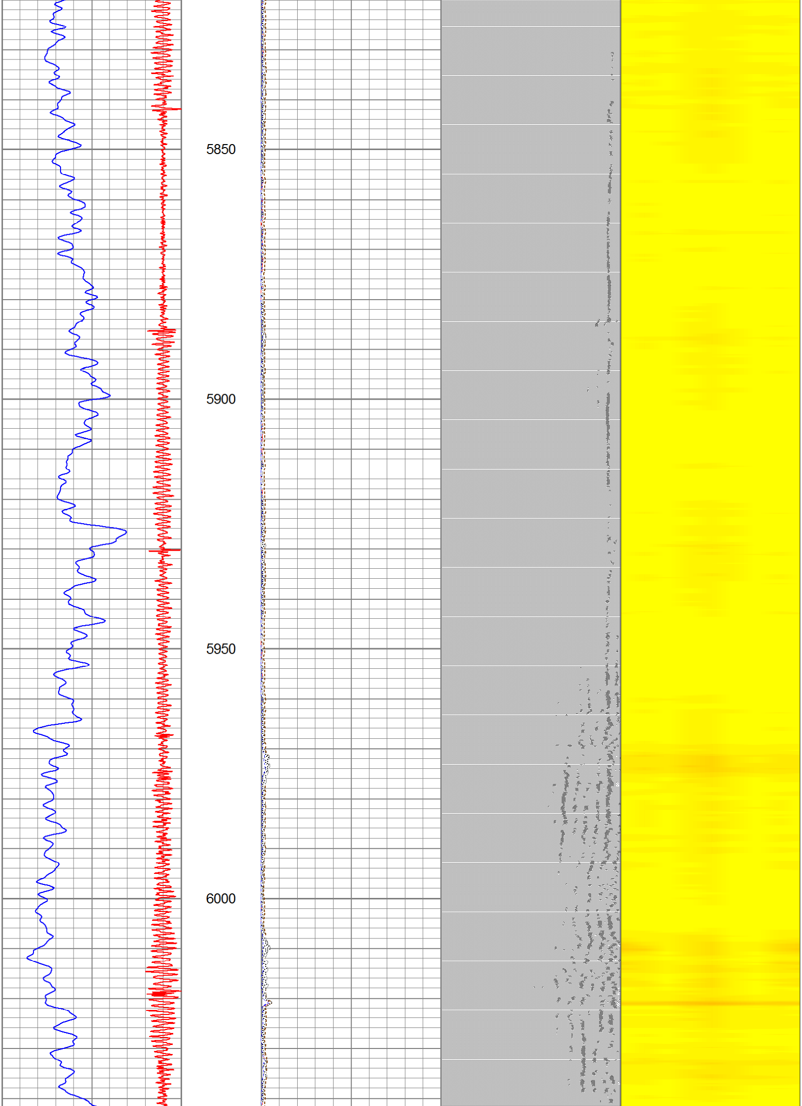
Database File: cbl noble riley ld19-745.db
Dataset Pathname: pass4
Presentation Format: sector2
Dataset Creation: Tue Nov 15 16:26:34 2016 by Log 7.0 B1
Charted by: Depth in Feet scaled 1:240

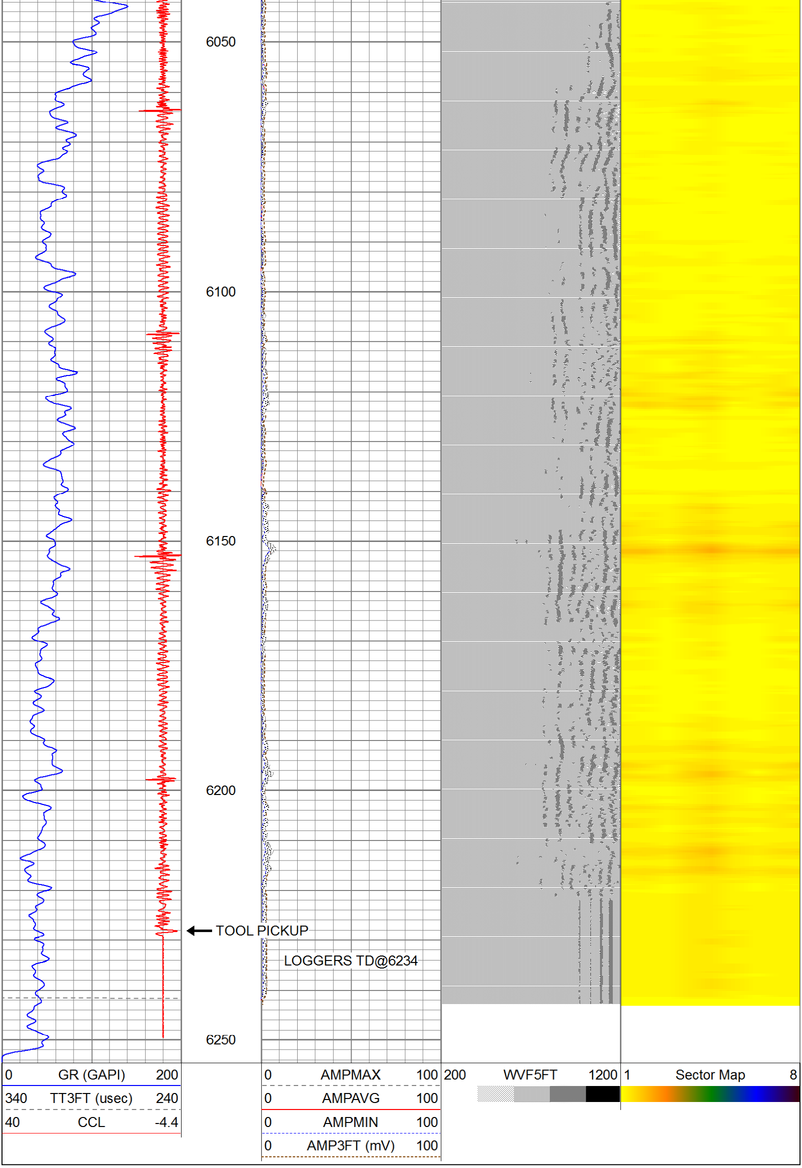












Calibration Report

Database File: cbl noble riley ld19-745.db
Dataset Pathname: pass4
Dataset Creation: Tue Nov 15 16:26:34 2016 by Log 7.0 B1

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 110785

SHOP CALIBRATION

Tue Nov 15 08:29:22 2016

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		0.4000			GAPI/cps

PRIMARY VERIFICATION

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

BEFORE SURVEY VERIFICATION

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

AFTER SURVEY VERIFICATION

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

Segmented Cement Bond Log Calibration Report

Serial Number: 101020
Tool Model: Probe

Calibration Casing Diameter: 5.500 in
Calibration Depth: 1070.817 ft

Master Calibration, performed Tue Nov 15 16:10:58 2016:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.008	1.002	1.500	71.921	70.825	0.959
CAL	0.008	1.011				
5'	0.008	1.153	1.500	71.921	61.487	1.030
SUM						
S1	0.008	0.824	0.000	71.196	87.192	-0.658
S2	0.008	0.881	0.000	71.196	81.479	-0.625
S3	0.008	0.996	0.000	71.196	72.050	-0.556
S4	0.008	1.102	0.000	71.196	65.076	-0.493
S5	0.008	1.119	0.000	71.196	64.081	-0.494
S6	0.008	1.119	0.000	71.196	64.083	-0.483
S7	0.008	1.000	0.000	71.196	71.735	-0.550
S8	0.008	0.890	0.000	71.196	80.717	-0.608

Internal Reference Calibration, performed Fri Jan 13 14:30:16 2012:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.008	1.011	1.000	0.000

Air Zero Calibration, performed Tue Nov 15 08:01:16 2016:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000